| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/648,420 | 08/23/2000 | Richard David Day | SPEE0014 | 5648 |

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| EXAMINER |
|---|
| TODD, GREGORY G |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2157 | |

DATE MAILED: 10/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| | Office Action Summary | Application No. | Applicant(s) |
|---|---|---|---|
| | | 09/648,420 | DAY ET AL. |
| | | Examin r | Art Unit |
| | | Gregory G Todd | 2157 |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspond nce addre s --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on _28 August 2000_ .

2a)☐ This action is **FINAL**.     2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) _1-20_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-20_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _28 August 2000_ is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _7_ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

U.S. Patent and Trademark Office
PTOL-326 (Rev. 04-01)        Office Action Summary        Part of Paper No. 8

## DETAILED ACTION

1.      This is a first office action in response to application filed, with the above serial

number, on 28 August 2000 in which claims 1-20 are presented for examination and

priority to provisional application 60/166,906 filed 22 November 1999 is claimed. Claims

1-20 are therefore pending in the application.

### *Drawings*

2.      Figure 2 should be designated by a legend such as --Prior Art-- because only

that which is old is illustrated.  See MPEP § 608.02(g).  A proposed drawing correction

or corrected drawings are required in reply to the Office action to avoid abandonment of

the application.  The objection to the drawings will not be held in abeyance.

### *Specification*

3.      Applicant is reminded of the proper language and format for an abstract of the
disclosure.

The abstract should be in narrative form and generally limited to a single
paragraph on a separate sheet within **the range of 50 to 150 words**. It is important
that the abstract not exceed 150 words in length since the space provided for the
abstract on the computer tape used by the printer is limited.  The form and legal
phraseology often used in patent claims, such as "means" and "said," should be
avoided.  The abstract should describe the disclosure sufficiently to assist readers in
deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information
given in the title.  It should avoid using phrases which can be implied, such as, "The
disclosure concerns," "The disclosure defined by this invention," "The disclosure
describes," etc.

4.     The disclosure is objected to because of the following informalities: On page 12,

line 11, "ANDS" is suggested to be replaced with --ADNS--.

      `Appropriate correction is required.

5.     The lengthy specification has not been checked to the extent necessary to

determine the presence of all possible minor errors. Applicant's cooperation is

requested in correcting any errors of which applicant may become aware in the

specification.


### Claim Objections

6.     Claim 15 is objected to because of the following informalities:  In lines 15 and 20,

"traffice" is suggested to be replaced with --traffic--.  Appropriate correction is required.

7.     Claim 1 is objected to because of the following informalities:  In line 1, the period

after "servers" is not appropriate.  Appropriate correction is required.


### Claim Rejections - 35 USC § 112

8.     The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

9.     Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite

for failing to particularly point out and distinctly claim the subject matter which applicant

regards as the invention. "[T]he data" in lines 60 and 61 can refer to the data in line 12,

line 58 or line 59, and which vague data is indefinite.

10.    Claims 10 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention. The three performance metric measurements are not

indicated as being in the alternative form.

11.    The term "measurements lower than..." in claims 8, 12, 13, and 15 is a relative

term which renders the claim indefinite.  The term "measurements lower than..." is not

defined by the claim, the specification does not provide a standard for ascertaining the

requisite degree, and one of ordinary skill in the art would not be reasonably apprised of

the scope of the invention.  From claim 1 it is understood a better measurement is the

POP server the data will be served from, while a lower measurement is unclear and

indefinite as to how lower is relative to any certain standard (ie. a lower measurement is

understood as not being better).

12.    Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete

for omitting essential steps, such omission amounting to a gap between the steps.  See

MPEP § 2172.01.  The omitted steps are:  It is not clear how the same web page has

the same hostname yet having a second different web address.


### Claim Rejections - 35 USC § 103

13.    The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

14.    Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Chauhan (hereinafter "Chauhan", 6,115,752) in view of Scharber (hereinafter

"Scharber", 6,542,964).

15.    As per Claim 1, Chauhan discloses a method for operating a network of point of

presence servers sharing a hostname, wherein Chauhan discloses:

receiving a request from a user for a web page at a first web address, the first

web address including the hostname (request for address) (at least col. 6, lines 45-53);

determining traffic loads of a plurality of customer web servers, each of the

customer web servers storing the web page (mirrored server round trip times) (at least

col. 7, lines 24-42);

determining a customer web server from the plurality of customer web servers

that is appropriate for the request, the customer web server having a traffic load lower

than traffic loads of remaining customer web servers from the plurality of customer web

servers (mirrored server with best route) (at least col. 7, lines 24-42);

determining an IP address of the customer web server (address name server) (at

least col. 1, lines 41-53; col. 6, lines 45-63);

directing the request from the user to the customer web server (ONS routing

request) (at least Fig. 4); thereafter

receiving a request from the user for content on the web page at a second web

address, the second web address including the hostname (request for an address) (at

least col. 6, lines 45-53);

determining service metrics of servers in the network of servers (mirrored server

round trip times) (at least col. 7, lines 24-42);

determining the server from the network of servers that is appropriate for the

request, the server having service metrics better than service metrics of remaining

servers from the network of servers (mirrored server with best route) (at least col. 7,

lines 24-42).

Chauhan does not explicitly disclose point-of-presence servers as having cached

static content thereon to further mirror data of a customer webpage. However, the use

and advantages for using such a cache server is well known to one skilled in the art at

the time the invention was made as evidenced by the teachings of Scharber. Scharber

discloses many types of cache servers including POP cache servers for redirecting

requests for a most economical delivery of content to a end user (at least col. 4, lines

13-26, 46-56; col. 1, lines 60-67; col. 7, lines 3-7). Therefore, it would have been

obvious to one of ordinary skill in the art at the time the invention was made to

incorporate the use of Scharber's POP cache serving into Chauhan's system as this

would further enhance Chauhan's system to lessen load and traffic on mirror sites and

use Chauhan's optimizing address name translating with Scharber's POP cache servers

so as to geographically optimize latency between a client and static content from a

server thereon.

16.    As per Claim 2.

determining load of servers in the network of servers (at least col. 2, lines 14-33;

col. 3, lines 39-53);

wherein determining the server from the network of servers that is appropriate for

the request, the server having a latency and a load lower than latency or load of the

remaining servers from the network of servers (at least col. 2, lines 14-33; col. 3, lines

39-53).

17.    As per Claim 3.

Chauhan does not disclose caching static content. However, the use and

advantages for using such caching is well known to one skilled in the art at the time the

invention was made as evidenced by the teachings of Scharber. Scharber discloses:

determining whether the point of presence server includes the static content;

determining a web server that includes the static content when the point of presence

server does not include the static content (at least Scharber col. 4, lines 13-26, 46-56);

retrieving the static content from the web server that includes the static content

(at least Scharber col. 4, lines 13-26, 46-56); and

storing the static content from the web server in the point of presence server

(caching static content) (at least Scharber col. 4, lines 13-26, 46-56).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to incorporate Scharber's static page caching into

Chauhan's system as this is very well known in the art as to how server caching is

performed for client requested static content.

18.    As per Claim 4

wherein determining the web server comprises:

determining traffic loads of the plurality of customer web servers, each of the

customer web servers storing the static content (mirror servers) (at least col. 3, lines 39-

53); and

determining another customer web server from the plurality of customer web

servers that is appropriate for the request, the another customer web server having a

traffic load lower than traffic loads of remaining customer web servers from the plurality

of customer web servers (best route to mirror server) (at least col. 3, lines 39-53).

19.     As per Claim 5.

Chauhan does not disclose caching from another server. However, the use and

advantages for using such a caching protocol is well known to one skilled in the art at

the time the invention was made as evidenced by the teachings of Scharber. Scharber

discloses wherein retrieving the static content from the web server comprises:

determining another IP address of the another customer web server (peer cache

or origin) (at least Scharber col. 4, lines 46-56); and

requesting the static content from the another customer web server at the

another IP address (retrieving content from origin server) (at least Scharber col. 4, lines

46-56).

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to incorporate Scharber's static page caching into

Chauhan's system as this is very well known in the art as to how server caching is

performed for client requested static content.

20.     As per Claim 6.

wherein the network of point of presence servers comprises a domain name

server (at least col. 1, lines 41-67).

21.    As per Claim 7.

wherein the request from the user for the web page is transferred from a first

domain name server (local name server) (at least Fig. 4);

wherein the network of servers comprises a second domain name server (ONS)

(at least Fig. 4; col. 3, lines 23-38); and

wherein the second domain name server determines the customer web server

from the plurality of customer web servers (ONS determines mirror server) (at least col.

3, lines 39-53).

22.    As per Claim 8, Chauhan discloses a method for operating a network of point of

presence servers, wherein Chauhan discloses:

receiving a first request from a client DNS server to resolve a first domain name,

the client DNS server receiving a request from a user of a web page address that

includes the first domain name (request for address) (at least col. 6, lines 45-53);

determining load measurements of a plurality of customer web servers, each of

the customer web servers addressable by the first domain name, and each of the

customer web servers configured to service the request from the user (mirrored server

round trip times) (at least col. 7, lines 24-42);

determining a customer web server from the plurality of customer web servers,

the customer web server having load measurements lower than load measurements of

other customer web servers from the plurality of customer web servers (mirrored server

with best route) (at least col. 7, lines 24-42);

determining an IP address of the customer web server (address name server) (at

least col. 1, lines 41-53; col. 6, lines 45-63);

providing the IP address of the customer web server to the client DNS server

(LNS) (at least Fig. 4; col. 3, lines 39-53); thereafter

receiving a second request from the client DNS server to resolve a second

domain name, the client DNS server receiving a request from the user of a uniform

resource locator that includes the second domain name (request for an address) (at

least col. 6, lines 45-53);

determining performance metric measurement of servers in the network of

servers, each of the servers addressable by the second domain name (mirrored server

round trip times) (at least col. 7, lines 24-42);

determining a server from the network of servers, the server having performance

metric measurements lower than performance metric measurements of other servers

from the network of servers (mirrored server with best route) (at least col. 7, lines 24-

42);

providing the IP address of the server to the client DNS server (LNS) (at least

Fig. 4; col. 3, lines 39-53).

Chauhan does not explicitly disclose point-of-presence servers as having cached

content thereon to further mirror data of a customer webpage. However, the use and

advantages for using such a cache server is well known to one skilled in the art at the

time the invention was made as evidenced by the teachings of Scharber. Scharber

discloses many types of cache servers including POP cache servers for redirecting

requests for a most economical delivery of content to a end user (at least col. 4, lines

13-26, 46-56; col. 1, lines 60-67; col. 7, lines 3-7). Therefore, it would have been

obvious to one of ordinary skill in the art at the time the invention was made to

incorporate the use of Scharber's POP cache serving into Chauhan's system as this

would further enhance Chauhan's system to lessen load and traffic on mirror sites and

use Chauhan's optimizing address name translating with Scharber's POP cache servers

so as to geographically optimize latency between a client and content from a server

thereon.

23.    As per Claim 9 and 16.

       wherein the load measurements comprise latency measurements (at least col. 2,

lines 1-9, 42-57).

24.    As per Claim 10 and 17.

       wherein the performance metric measurements comprise load CPU and memory

measurements, HTTP response measurements, or FTP response measurements (load,

ping) (at least col. 2, lines 14-33; col. 3, lines 54-66).

25.    As per Claim 11 and 18.

       Chauhan does not disclose caching static content. However, the use and

advantages for using such caching is well known to one skilled in the art at the time the

invention was made as evidenced by the teachings of Scharber. Scharber discloses

wherein retrieving data from the point of presence server comprises:

determining whether the point of presence server includes the data (at least
Scharber col. 4, lines 13-26, 46-56);

retrieving data from another customer web server from the plurality of customer
web servers when the server does not include the data (at least Scharber col. 4, lines
13-26, 46-56); and

storing the data within the server (caching static content) (at least Scharber col.
4, lines 13-26, 46-56).

Therefore, it would have been obvious to one of ordinary skill in the art at the
time the invention was made to incorporate Scharber's static page caching into
Chauhan's system as this is very well known in the art as to how server caching is
performed for client requested static content.

26.     As per Claim 12 and 19.

wherein retrieving data from the other customer web server comprises:

determining the other customer web server from the plurality of customer web
servers, the other customer web server having load measurements lower than load
measurements of remaining customer web servers from the plurality of customer web
servers (at least col. 2, lines 14-33; col. 3, lines 39-53); and

retrieving the data from the other customer web server (download content) (at
least col. 2, lines 1-9).

27.     As per Claim 13.

receiving a first request from a second client DNS server to resolve a third

domain name, the second client DNS server receiving a request from a second user of

a second web page address that includes the third domain name (at least Fig. 4);

determining load measurements of a plurality of second customer web servers,

each of the second customer web servers addressable by the third domain name, and

each of the second customer web servers storing data configured to service the request

from the second user (mirrored servers) (at least Fig. 4);

determining a second customer web server from the plurality of second

customer web servers, the second customer web server having load measurements

lower than load measurements of other second customer web servers from the plurality

of second customer web servers; determining an IP address of the second customer

web server (at least col. 2, lines 14-33; col. 3, lines 39-53); and

providing the IP address of the second customer web server to the second client

DNS server (IP2) (at least Fig. 4).

28.     As per Claim 14.

Chauhan inherently discloses more than one user using the system, and that

with any user, the mirror site with the best performance characteristics will be chosen as

the server to retrieve content from thereon:

receiving a second request from the second client DNS server to resolve the

second domain name, the second client DNS server receiving a request from the

second user of a second uniform resource locator that includes the second domain

name (at least Fig. 4; col. 2, lines 10-33);

retrieving a second set of data from the point of presence server in response to

the second uniform resource locator (at least Fig. 4; col. 2, lines 10-33); and

providing the second set of data to the user (at least Fig. 4; col. 2, lines 1-33).

29.    As per Claim 15, Chauhan discloses a method for a network of point of presence

servers, wherein Chauhan discloses:

receiving at a first point of presence server a first request from a first client DNS

server to resolve a first domain name, the first request from the first client DNS server

determined in response to a first uniform resource locator entered by a first user, the

first uniform resource locator comprising the first domain name (request for address) (at

least col. 6, lines 45-53);

receiving at a second point of presence server a first request from a second

client DNS server to resolve the first domain name, the first request from the second

client DNS server determined in response to the first uniform resource locator entered

by a second user, the first uniform resource locator comprising the first domain name

(another request for address) (at least col. 6, lines 45-53);

determining at the first point of presence server traffic measurements of a

plurality of customer web servers, each of the customer web servers addressable by the

first domain name, and each of the customer web servers storing data associated with

the first uniform resource locator (mirrored server round trip times) (at least col. 7, lines

24-42);

determining at the first point of presence server a first customer web server from

the plurality of customer web servers, the first customer web server having traffic

measurements lower than load measurements of other customer web servers from the

plurality of customer web servers (mirrored server with best route) (at least col. 7, lines

24-42);

determining at the second point of presence server the first customer web server

from the plurality of customer web servers, the first customer web server having traffic

measurements lower than load measurements of other customer web servers from the

plurality of customer web servers (mirrored server with best route) (at least col. 7, lines

24-42);

determining at the first point of presence server an IP address of the first

customer web server (address name server) (at least col. 1, lines 41-53; col. 6, lines 45-

63);

determining at the second point of presence server an IP address of the first

customer web server (address name server) (at least col. 1, lines 41-53; col. 6, lines 45-

63);

providing from the first point of presence server the IP address of the first

customer web server to the first client DNS server and to the second .client DNS server

(LNS) (at least Fig. 4; col. 3, lines 39-53);

providing from the second point of presence server the IP address of the first

customer web server to the first client DNS server and to the second client DNS server

(LNS) (at least Fig. 4; col. 3, lines 39-53); thereafter

receiving at the first point of presence server a second request from the first

client DNS server to resolve a second domain name, the second request from the first

client DNS server determined in response to a second uniform resource locator

comprising the second domain name, the second uniform resource locator from the first

customer web server (request for an address) (at least col. 6, lines 45-53);

receiving at the second point of presence server a second request from the

second client DNS server to resolve the second domain name, the second request from

the second client DNS server determined in response to the second uniform resource

locator comprising the second domain name, the second uniform resource locator from

the first customer web server (request for an address) (at least col. 6, lines 45-53);

determining at the first point of presence server performance metric

measurement between the first point of presence server and other point of presence

servers in the network of point of presence servers, each of the point of presence

servers addressable by the second domain name (mirrored server round trip times) (at

least col. 7, lines 24-42);

determining at the second point of presence server performance metric

measurement between the second point of presence server and other point of presence

servers in the network of point of presence servers (mirrored server round trip times) (at

least col. 7, lines 24-42);

determining at the first point of presence server performance metric

measurement between the second point of presence server and other point of presence

servers in the network of point of presence servers (mirrored server round trip times) (at

least col. 7, lines 24-42);

determining at the first point of presence server a third point of presence server from the network of point of presence servers, the third point of presence server having performance metric measurements lower than performance metric measurements with regards to the first point of presence server (mirrored server with best route) (at least col. 7, lines 24-42);

determining at the second point of presence server a fourth point of presence server from the network of point of presence servers, the fourth point of presence server having performance metric measurements lower than performance metric measurements with regards to the second point of presence server (mirrored server with best route) (at least col. 7, lines 24-42).

Chauhan discloses multiple users (inherently) requesting a URL for name translation and a local name server routing requests to an optimizer name server to route the request to the mirror site with the best performance for that user. Chauhan does not explicitly disclose multiple point-of-presence servers as having cached content thereon to further mirror data of a customer webpage. However, the use and advantages for using such a cache server is well known to one skilled in the art at the time the invention was made as evidenced by the teachings of Scharber. Scharber discloses many types of cache servers including POP cache servers for redirecting requests for a most economical delivery of content to a end user (at least col. 4, lines 13-26, 46-56; col. 1, lines 60-67; col. 7, lines 3-7). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of Scharber's POP cache serving into Chauhan's system as this

would further enhance Chauhan's system to lessen load and traffic on mirror sites and use Chauhan's optimizing address name translating with Scharber's POP cache servers so as to geographically optimize latency between a client and static or dynamic content from a server thereon.

30.    As per Claim 20.

wherein the first domain name and the second domain name are the same (mirrored sites) (at least col. 1, lines 41-67).


### Conclusion

31.    The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bolton et al, Emens et al, Shah, Leighton et al, Logan et al, Rune, Sitaraman et al, Malcolm, Herriot, Kapoor, and Gupta et al are cited for disclosing pertinent information related to the claimed invention. Applicants are requested to consider the prior art reference for relevant teachings when responding to this office action.

32.    Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory G Todd whose telephone number is (703)305-5343. The examiner can normally be reached on Monday - Friday 9:00am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (703)308-7562. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is (703)305-

3900.


Gregory Todd

Patent Examiner

Technology Center 2100

ARIO ETIENNE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100